AMENDMENTS TO THE SPECIFICATION

Please replace the Sequence Listing filed February 23, 2005, with the Substitute Sequence Listing filed herewith.

Please replace the paragraph on page 31, at lines 4 to 12, with the following paragraph.

(3) Degenerated PCR

Using 3 μl out of the synthesized first strand cDNA (33 μl) as a template, PCR was carried out. Primers were designed and produced by comparing the amino acid sequences of known fluorescent proteins, extracting similar portions, and converting them into nucleotide sequences. The sequences of the used primers are shown below:

5'- GAAGGRTGYGTCAAYGGRCAY -3' (primer1) (SEQ ID NO:19)

5'- ACVGGDCCATYDGVAAGAAARTT -3'(primer2) (SEQ ID NO:20)

wherein ~~I represents inosine,~~ R represents A or G, Y represents C or T, V represents A, C or G, and D represents A, G or T~~, S represents C or G, and H represents A, T, or C~~.

Please replace the paragraph bridging page 32, at line 27, to page 33, line 1, with the following paragraph.

For the first amplification of dC-tailed cDNA, the following primers were used:

~~5'-ggccacgcgtcgactagtacgggiigggiigggiig-3' (primer3) (SEQ ID NO: 21)~~

5'-ggccacgcgtcgactagtacgggnngggnngggnng-3' (primer3) (SEQ ID NO: 21)

5'- AAGAGACTCCTTGAAGTAATCGGGA -3' (primer4) (SEQ ID NO: 22)

wherein [[I]] n represents inosine.

Please replace the paragraph on page 37, at lines 13 to 21, with the following paragraph.

(3) Degenerated PCR

Using 3 μl out of the synthesized first strand cDNA (33 μl) as a template, PCR was carried out. Primers were designed and produced by comparing the amino acid sequences of known fluorescent proteins, extracting similar portions, and converting them into nucleotide sequences. The sequences of the used primers are shown below:

5'- GAAGGRTGYGTCAAYGGRCAY -3' (primer1) (SEQ ID NO:19)

5'- ACVGGDCCATYDGVAAGAAARTT -3'(primer2) (SEQ ID NO:20)

wherein ~~I represents inosine,~~ R represents A or G, Y represents C or T, V represents A, C or G, and D represents A, G or T~~, S represents C or G, and H represents A, T, or C~~.

Please replace the paragraph on page 39, at lines 5 to 9, with the following paragraph.

For the first amplification of DC-tailed cDNA of the red individual, the following primers were used:

~~5'-ggccacgcgtcgactagtacgggiigggiigggiig-3' (primer3) (SEQ ID NO: 21)~~

5'-ggccacgcgtcgactagtacgggnngggnngggnng-3' (primer3) (SEQ ID NO: 21)

5'- AAGAGACTCCTTGAAGTAATCGGGA -3' (primer4) (SEQ ID NO: 22)

wherein [[I]] n represents inosine.

Please replace the paragraph on page 47, at lines 21 to 29, with the following paragraph.

(3) Degenerated PCR

Using 3 μl out of the synthesized first strand cDNA (33 μl) as a template, PCR was carried out. Primers were designed and produced by comparing the amino acid sequences of known fluorescent proteins, extracting similar portions, and converting them into nucleotide sequences. The sequences of the used primers are shown below:

5'- ATCAAGNTNWRYATGGAAGG -3' (primer1) (SEQ ID NO:27)

5'- acVggDccatYDgVaagaaaRtt-3' (primer2) (SEQ ID NO:28)

wherein R represents A or G, Y represents C or T, V represents A, C or G, ~~and~~ D represents A, G or T, and N represents A, G, C, or T.

Please replace the paragraph on page 49, at lines 14 to 17, with the following paragraph.

For the first amplification of DC-tailed cDNA, the following primers were used:

~~5'-ggccacgcgtcgactagtacgggiigggiigggiig-3' (primer3) (SEQ ID NO:29)~~

5'-ggccacgcgtcgactagtacgggnngggnngggnng-3' (primer3) (SEQ ID NO:21)

5'- AGTTCACACCATGATATTCAATATCATA -3' (primer4) (SEQ ID NO:~~30~~29)

wherein [[I]] n represents inosine.

Please replace the paragraph on page 49, at lines 18 to 22, with the following paragraph.

For the second amplification, the following primers were used:

5'-ggccacgcgtcgactagtac-3' (primer5) (SEQ ID NO:~~31~~30)

5'-TCTTCGTAAGTCATGCTTCGTTC-3' (primer6) (SEQ ID NO:~~32~~31)

PCR reaction conditions and the like were determined in accordance with the protocols attached with the kit.

Please replace the paragraph on page 50, at lines 1 to 7, with the following paragraph.

(6) 3'-RACE method

The 3'-terminal portion of the DNA fragment obtained by degenerated PCR was obtained by PCR, using the primer produced based on the information obtained by sequencing of the nucleotide sequence in (4) above and an oligo dT primer. 3 μl of the first strand cDNA prepared in (2) above was used as a template. The produced primer is shown below:

5'- GGTATTCGCCAAATACCCAAA -3'(primer7) (SEQ ID NO:~~33~~32)

Please replace the paragraph on page 51, at lines 5 to 15, with the following paragraph.

(7) Obtainment of full-length cDNA

An open reading frame encoding a fluorescent protein was determined based on the obtained full-length nucleotide sequence. Primers were produced from portions corresponding to the N-terminus and the C-terminus. PCR was carried out using the First strand cDNA prepared in (2) above as a template, so as to obtain full-length cDNA.

This clone was named as Momiji. The amino acid sequence of Momiji is shown in SEQ ID NO: 9, and the nucleotide sequence thereof is shown in SEQ ID NO: 10.

The primers used are shown below:

5'-CCCGGATCCGACCATGGTGAGTGTGATTAAGGACGAAATG-3'(primer8) (SEQ ID NO:~~34~~33)

5'-CCGCTCGAGTTGTTGTTGTTTCTCTTTGTCCTG -3' (primer9) (SEQ ID NO:~~35~~34)